

CONSERVATION RECORDS

Irrigation System Description

<i>Irr-2</i>	<i>Irrigation Inventory</i>
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<i>Irr-8</i>	<i>Worksheet IR6: Farm Turnout/Boundary</i>
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Irrigation Systems by Type

<i>Irr-12-43</i>	<i>Worksheets IR8 - IR15</i>
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Name: _____

Farm/Ranch: _____

Irrigation Inventory

Please complete pages Irr-3 through Irr-9. Next, complete only the worksheets on pages Irr-11 through Irr-43 that apply to your operation.

Irrigation Description Notes

Throughout the following irrigation sections, please use the designated Note areas on pages Irr-10 and Irr-44-46 if you need to explain or further describe your answers in the worksheets.

Irrigation Definitions

Definitions relate to the **Center Pivot** (page Irr-24) and **Lateral Move Sprinkler** (page Irr-28) sections.

LEPA - Low Energy Precision Application

- a) Farmed in Circular Rows (except Linear Move Systems)
- b) Nozzle Height no more than 18 inches above soil surface
- c) Alternate row Nozzle Spacing, up to a maximum of 80 inches
- d) Discharge through a drag sock or hose on the ground or through a bubble shield or pad
- e) Only applicable to crops planted with furrows or beds
- f) Maximum of 1% slope on most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

LESA - Low Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height no more than 18 inches above soil surface
- c) Alternate row Nozzle Spacing, up to a maximum of 80 inches
- d) Discharge through spray nozzles
- e) Applicable on crops flat planted, drilled, or planted with furrows or beds
- f) Maximum of 3% slope on most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

LPIC - Low Pressure In Canopy

- a) Farmed in any row direction
- b) Nozzle Height 18 inches to 36 inches above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge in the crop canopy
- e) Maximum of 3% slope on most of field
- f) Systems that utilize bubble nozzles or drag hoses for a portion of the crop year and spray nozzles for a portion of the crop year, but that do not meet all LEPA criteria, should be considered LPIC systems.

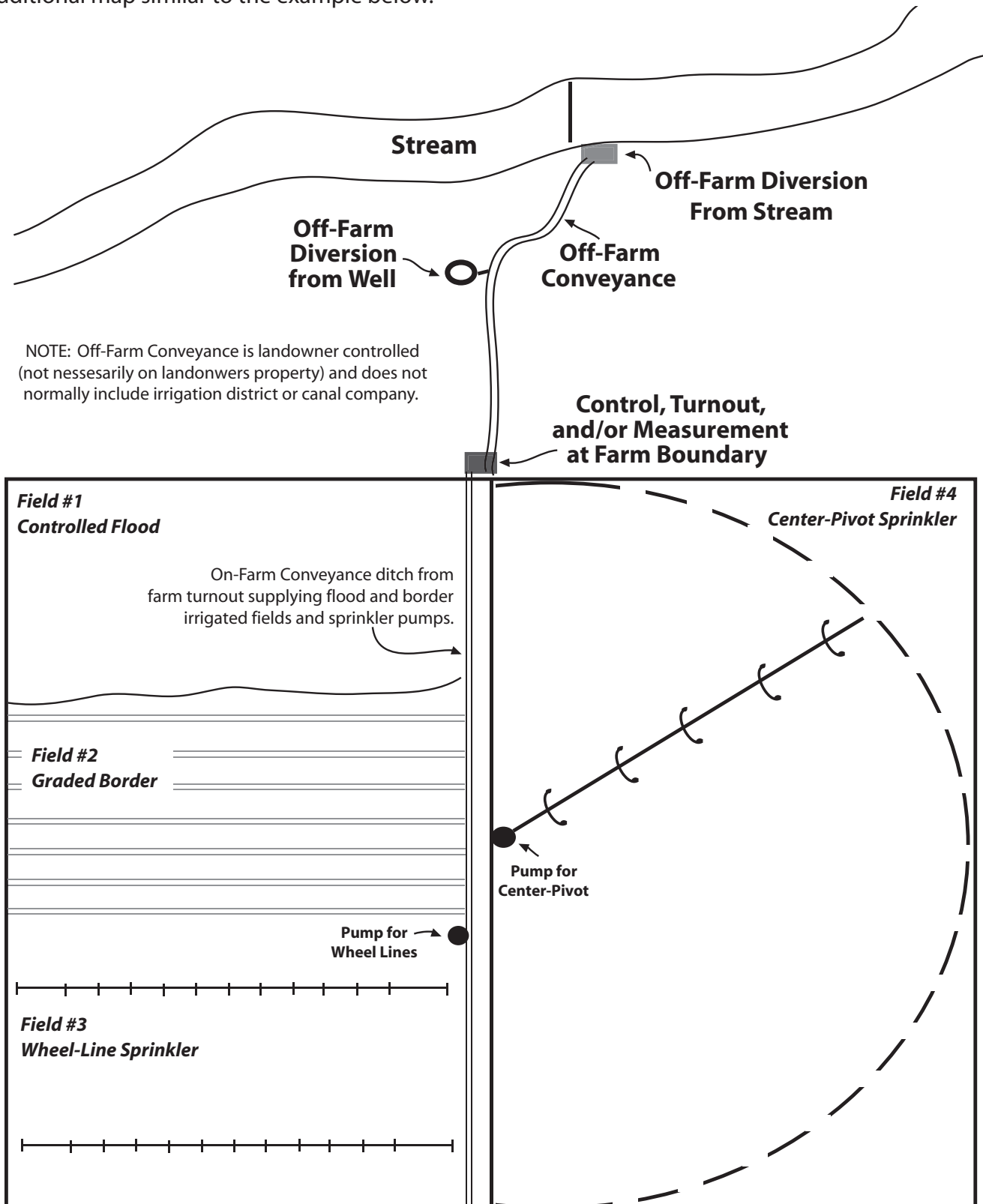
MESA - Mid Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height more than 36 inches (3 feet) and less than 84 inches (7 feet) above soil surface
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge above the crop canopy
- e) Maximum of 3% slope on most of field

Irrigation System Layout

Instructions

Please refer to the **Conservation Farm Map** you attached to the first section of your **Conservation Records** (page 7). Please add to the map details about your irrigation system as shown below. If you are unable to adequately mark your irrigation system on your Conservation Farm Map, please attach an additional map similar to the example below.



Irrigation Inventory Worksheets IR1, IR2 & IR3

Complete the **Irrigation Inventory** only if you use irrigation to manage your crop, hay or pasture land.

To complete the **Water Supply Inventory Worksheet**, list your field numbers or names with the corresponding information. The subsequent worksheets will help you develop an overall summary of your irrigation system.

EXAMPLE _____

Worksheet IR1: Water Supply Inventory

Field Number	Acres	Crops Grown	Soil Type	Irrigation System
1	160	Alfalfa	Sandy Loam	Wheeline

EXAMPLE _____

Worksheet IR2: Water Source

Select the source for irrigation water on your farm. Indicate all sources if more than one source is utilized.

Water Source	Check all that apply.
Well (Note the number of wells utilized)	
Stream	X
Lake or Pond	
Other Sources Used (Please explain)	

EXAMPLE _____

Worksheet IR3: Water Right/Allocation

Indicate the amount of water allocated for your operation along with the flow rate in the worksheet below.

Water Right/Allocation	
Flow Rate in Cubic Feet per Second (cfs) or Gallons per Minute (gpm)	2 cfs
Volume in Acre-Feet per Season (Indicate per-acre or entire farm)	320 acre-ft per season for entire farm
Other (Explain)	

Irrigation Inventory Worksheets IR1, IR2 & IR3

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Worksheet IR1: Water Supply Inventory

<i>Field Number</i>	<i>Acres</i>	<i>Crops Grown</i>	<i>Soil Type</i>	<i>Irrigation System</i>

Worksheet IR2: Water Source

Select the source for irrigation water on your farm. Indicate all sources if more than one source is utilized.

<i>Water Source</i>	<i>Check all that apply.</i>
Well (Note the number of wells utilized)	
Stream	
Lake or Pond	
Other Sources Used (Please explain)	

Worksheet IR3: Water Right/Allocation

Indicate the amount of water allocated for your operation along with the flow rate in the worksheet below.

<i>Water Right/Allocation</i>	
Flow Rate in Cubic Feet per Second (cfs) or Gallons per Minute (gpm)	
Volume in Acre-Feet per Season (Indicate per-acre or entire farm)	
Other (Explain)	

Irrigation Inventory Worksheets IR4 & IR5

EXAMPLE _____

Worksheet IR4: Water Diversion

Are you able to control the flow rate from your water source to the farm?

Yes

No

If "YES," please answer the questions below. If "NO," skip to **Worksheet IR5**.

Diversion Description		
Are there permanent fish screens installed on the diversion structure?	Yes	No
↳ If your fish screen is not permanent would you be interested in upgrading?	Yes	No
↳ If "NO," would you be interested in installing fish screens?	Yes	No
Do you measure the water at the point of the diversion?	Yes	No
↳ If "YES," are flows recorded manually or automatically?	Manually	Automatically
↳ If "NO," are you interested in adding a measuring device?	Yes	No

EXAMPLE _____

Worksheet IR5: Off-Farm Conveyance

Use the worksheet below to describe the Off-Farm Conveyance (delivery system) from your water source to the farm boundary. If the water source is located on-farm, please skip to **Worksheet IR6**.

	Conveyance Type	Length (Feet or Miles)
Pipeline (Including both gravity and pressurized pipelines)		
Lined Ditch or Canal	X	500 Feet
Unlined Ditch or Canal (Indicate soil type)		
Other (Explain)		

If you selected Unlined Ditch, would you be interested in switching to a lined ditch or pipeline?	
Please estimate the percentage of water lost between the point of diversion and the farm turnout/boundary.	10%
Is a pump included in the off-farm conveyance system? If more than one, indicate how many.	Yes, 2
↳ If a pump is included, what is the energy source, capacity, size of motor and pressure (head) at the inlet?	Electric, 900 gpm, 5 hp, 25 feet
↳ When was the pump(s) installed?	1992
↳ If your pump intake is located in a fish bearing stream does it have a fish screen?	Yes
When was the last major maintenance / overhaul (please describe)?	None

Irrigation Inventory Worksheets IR4 & IR5

Natural Resources Conservation Service



Worksheet IR4: Water Diversion

Are you able to control the flow rate from your water source to the farm?

Yes

No

If "YES," please answer the questions below. If "NO," skip to **Worksheet IR5**.

Diversion Description		
Are there permanent fish screens installed on the diversion structure?	Yes	No
↳ If your fish screen is not permanent would you be interested in upgrading?	Yes	No
↳ If "NO," would you be interested in installing fish screens?		
Do you measure the water at the point of the diversion?	Yes	No
↳ If "YES," are flows recorded manually or automatically?	Manually	Automatically
↳ If "NO," are you interested in adding a measuring device?	Yes	No

Worksheet IR5: Off-Farm Conveyance

Use the worksheet below to describe the Off-Farm Conveyance (delivery system) from your water source to the farm boundary. If the water source is located on-farm, please skip to **Worksheet IR6**.

	Conveyance Type	Length (Feet or Miles)
Pipeline (Including both gravity and pressurized pipelines)		
Lined Ditch or Canal		
Unlined Ditch or Canal (Indicate soil type)		
Other (Explain)		

If you selected Unlined Ditch, would you be interested in switching to a lined ditch or pipeline?	
Please estimate the percentage of water lost between the point of diversion and the farm turnout/boundary.	
Is a pump included in the off-farm conveyance system? If more than one, indicate how many.	
↳ If a pump is included, what is the energy source, capacity, size of motor and pressure (head) at the inlet?	
↳ When was the pump(s) installed?	
↳ If your pump intake is located in a fish bearing stream does it have a fish screen?	
When was the last major maintenance / overhaul (please describe)?	

Irrigation Inventory Worksheets IR6 & IR7

EXAMPLE _____

Worksheet IR6: Farm Turnout/Boundary

Farm Turnout/Boundary Description		
Do you measure the water at the farm turnout/boundary?	<u>Yes</u>	No
If so, are flows recorded manually or automatically?	<u>Manually</u>	Automatically
If not, are you interested in adding a measurement device?	Yes	No

EXAMPLE _____

Worksheet IR7: On-Farm Conveyance

In the worksheet below, describe the On-Farm Conveyance (delivery system) between your farm turnout/boundary and the individual fields.

Field Name/Number	1					
Indicate below how the water is conveyed from the farm turnout/boundary to the listed fields.						
• Pipeline Length (Indicate both gravity and pressurized pipelines)						
• Lined Ditch/Canal Length						
• Unlined Ditch/Canal Length (Indicate soil type)	120 Feet Sandy Loam					
• Other (Explain)						
If you selected Unlined Ditch, would you be interested in switching to a Lined Ditch or Pipeline?	Yes					
Please estimate the percentage of water lost between the farm turnout/boundary and each field.	10%					
Is a pump included in the conveyance system? (List the number of pump(s) used for each field)	1 pump					
↳ If pumps are used, what is the energy source and size of the motors?	Diesel, 60 Hp					
↳ When was the pump installed?	1998					
↳ If your pump intake is located in a fish bearing stream does it have a fish screen?						
↳ When was the last major maintenance/overhaul? Describe.	See Notes					

Irrigation Inventory Worksheets IR6 & IR7

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Worksheet IR6: Farm Turnout/Boundary

<i>Farm Turnout/Boundary Description</i>		
Do you measure the water at the farm turnout/boundary?	Yes	No
If so, are flows recorded manually or automatically?	Manually	Automatically
If not, are you interested in adding a measurement device?	Yes	No

Worksheet IR7: On-Farm Conveyance

In the worksheet below, describe the On-Farm Conveyance (delivery system) between your farm turnout/boundary and the individual fields.

<i>Field Name/Number</i>						
Indicate below how the water is conveyed from the farm turnout/boundary to the listed fields.						
• Pipeline Length (Indicate both gravity and pressurized pipelines)						
• Lined Ditch/Canal Length						
• Unlined Ditch/Canal Length (Indicate soil type)						
• Other (Explain)						
If you selected Unlined Ditch, would you be interested in switching to a Lined Ditch or Pipeline?						
Please estimate the percentage of water lost between the farm turnout/boundary and each field.						
Is a pump included in the conveyance system? (List the number of pump(s) used for each field)						
↳ If pumps are used, what is the energy source and size of the motors?						
↳ When was the pump installed?						
↳ If your pump intake is located in a fish bearing stream does it have a fish screen?						
↳ When was the last major maintenance/overhaul? Describe.						

Notes

CONSERVATION RECORDS

Irrigation System Descriptions By Type

At this point please complete ONLY the sections that apply to the irrigation system utilized for your operation.

*Irr-12 Worksheet IR8: **Border Irrigation***
*Irr-16 Worksheet IR9: **Furrow Irrigation***
*Irr-20 Worksheet IR10: **Flood Irrigation***
*Irr-24 Worksheet IR11: **Center-Pivot Sprinkler Irrigation***
*Irr-28 Worksheet IR12: **Lateral Move Sprinkler Irrigation***
*Irr-32 Worksheet IR13: **Sprinkler Irrigation***
*Irr-36 Worksheet IR14: **Microirrigation***
*Irr-40 Worksheet IR15: **Sub-Irrigation***

Border Irrigation System Description

The following sections capture further information on your irrigation system. Please complete only the sections that relate to your irrigation system. Sections include: **Border, Furrow, Flood, Sprinkler, Center-Pivot Sprinkler, Lateral-Move Sprinkler, Microirrigation** and **Sub-irrigation**.

EXAMPLE _____

Worksheet IR8: Border Irrigation System Description

Field Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Border irrigation system.						
• Graded Border	40 acres					
• Level Border or Basin						
• Guide						
• Contour Levee: Field Crop						
• Border Ditch						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If "YES," what type.	Yes, to Center Pivot					
What is the total system flow rate to this field? (cfs or gpm)	2 cfs					
↳ Are you able to control the flow rate to this field?	No					
↳ Are you able to control the flow rate to each border strip or basin?	No					
Do you measure water to this field?	No					
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the average area of a basin or border strip in this field?	1.2 acres					
What is the average irrigation set time?	12 hours					
↳ How many basins or border strips do you irrigate per set?	4					
↳ What is the gross depth of application for the given set time? (inches)	5 inches					
When was the system installed?	1990					

Border Irrigation System Description

The following sections capture further information on your irrigation system. Please complete only the sections that relate to your irrigation system. Sections include: **Border, Furrow, Flood, Sprinkler, Center-Pivot Sprinkler, Lateral-Move Sprinkler, Microirrigation** and **Sub-irrigation**.

Worksheet IR8: Border Irrigation System Description

Field Name/Number						
Indicate the number of acres in each field with the corresponding type of Border irrigation system.						
• Graded Border						
• Level Border or Basin						
• Guide						
• Contour Levee: Field Crop						
• Border Ditch						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If "YES," what type.						
What is the total system flow rate to this field? (cfs or gpm)						
↳ Are you able to control the flow rate to this field?						
↳ Are you able to control the flow rate to each border strip or basin?						
Do you measure water to this field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the average area of a basin or border strip in this field?						
What is the average irrigation set time?						
↳ How many basins or border strips do you irrigate per set?						
↳ What is the gross depth of application for the given set time? (inches)						
When was the system installed?						

Border Irrigation System Description

The following worksheet continues the description of your **Border Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR8a: Border Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
What is the degree of land leveling on the field? (Choose from list below and indicate completion date)						
• Land Smoothed						
• Land Leveled						
• Land Precision-Leveled	1990					
• Land Precision-Leveled and slope is less than 0.5%						
Is any additional pumping required to supply this field?	No					
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigation? If "YES," select the method from below.	Yes					
• Based on Water Availability						
• Visual Crop Stress	Yes					
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?	No					
Do you capture and re-use the irrigation tailwater from this field?	No					
↳ If "NO," would you be interested in recapturing tailwater?	Yes					
↳ If "YES," what percentage of the tailwater do you capture?						

Border Irrigation System Description

The following worksheet continues the description of your **Border Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR8a: Border Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
What is the degree of land leveling on the field? (Choose from list below and indicate completion date)						
• Land Smoothed						
• Land Leveled						
• Land Precision-Leveled						
• Land Precision-Leveled and slope is less than 0.5%						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigation? If "YES," select the method from below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						
Do you capture and re-use the irrigation tailwater from this field?						
↳ If "NO," would you be interested in recapturing tailwater?						
↳ If "YES," what percentage of the tailwater do you capture?						

Furrow Irrigation System Description

Please complete the **Furrow Irrigation System Description** only if it relates to your operation.

EXAMPLE _____

Worksheet IR9: Furrow Irrigation System Description

Field Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Furrow Irrigation system.						
• Level Furrow or Basin						
• Graded Furrow	30 acres					
• Contour Furrow						
• Corrugations						
• Surge						
• Other (Explain in Notes)						
Are you interested in changing to a different irrigation system type? If "YES," what type?	No					
What is the total systems flow rate to this field? (cfs or gpm)	1 cfs					
Are you able to control the flow rate to this field?	Yes					
Are you able to control the flow rate to each furrow or basin?	Yes					
Do you measure water to this individual field?	Yes					
↳ If "YES," are flows recorded manually or automatically?	Manual					
↳ If "NO," would you consider adding a water measuring device?						
What is the average length of a furrow in this field?	800 Feet					
↳ What is the furrow spacing?	30 inches					
↳ What is the average field slope?	1 %					
What is the average set time?	12 hours					
↳ How many furrows are irrigated per set?	80					
↳ What is the gross depth of application for the given set time? (inches)	3.3 inches					
When was the system installed?	1990					

Furrow Irrigation System Description

Natural Resources Conservation Service



Please complete the **Furrow Irrigation System Description** only if it relates to your operation.

Worksheet IR9: Furrow Irrigation System Description

Field Name/Number						
Indicate the number of acres in each field with the corresponding type of Furrow Irrigation system.						
• Level Furrow or Basin						
• Graded Furrow						
• Contour Furrow						
• Corrugations						
• Surge						
• Other (Explain in Notes)						
Are you interested in changing to a different irrigation system type? If "YES," what type?						
What is the total systems flow rate to this field? (cfs or gpm)						
Are you able to control the flow rate to this field?						
Are you able to control the flow rate to each furrow or basin?						
Do you measure water to this individual field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the average length of a furrow in this field?						
↳ What is the furrow spacing?						
↳ What is the average field slope?						
What is the average set time?						
↳ How many furrows are irrigated per set?						
↳ What is the gross depth of application for the given set time? (inches)						
When was the system installed?						

Furrow Irrigation System Description

The following worksheet continues the description of your **Furrow Irrigation System**. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR9a: Furrow Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
What is the degree of land leveling that has been done to the field? (Choose from the options listed below and indicate date completed)						
• Land Smoothed						
• Land Leveled						
• Land Precision-Leveled	1990					
• Land Precision-Leveled and slope is less than 0.5%						
Is any additional pumping required to supply this field?	No					
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? If so, please select the type below.	Yes					
• Based on Water Availability						
• Visual Crop Stress						
• Irrigation Scheduler, Scheduling Check Book	Yes					
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration						
Would you like to implement better ways to schedule your irrigations?	Yes					
Do you capture and re-use the irrigation tailwater from this field?	No					
↳ If "NO," would you be interested in recapturing tailwater?	No					
↳ If "YES," what percentage of the tailwater do you capture?						

Furrow Irrigation System Description

The following worksheet continues the description of your **Furrow Irrigation System**. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR9a: Furrow Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
What is the degree of land leveling that has been done to the field? (Choose from the options listed below and indicate date completed)						
• Land Smoothed						
• Land Leveled						
• Land Precision-Leveled						
• Land Precision-Leveled and slope is less than 0.5%						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? If so, please select the type below.						
• Based on Water Availability						
• Visual Crop Stress						
• Irrigation Scheduler, Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration						
Would you like to implement better ways to schedule your irrigations?						
Do you capture and re-use the irrigation tailwater from this field?						
↳ If "NO," would you be interested in recapturing tailwater?						
↳ If "YES," what percentage of the tailwater do you capture?						

Flood Irrigation System Description

Please complete the **Flood Irrigation System Description** only if it relates to your operation.

EXAMPLE _____

Worksheet IR10: Flood Irrigation System Description

Field ID Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Flood Irrigation system.						
• Controlled	40 Acres					
• Uncontrolled						
• Contour Ditch						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so, indicate what type.	Graded Border					
What is the total system flow rate to this field? (cfs or gpm)	2 cfs					
↳ Are you able to control the flow rate to this field?	Yes					
Do you measure water to this individual field?	No					
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?	Yes					
What is the average set time?	24 Hours					
↳ What is the gross depth of application for the given set time? (inches)	6 inches					
What is the average slope of the field?	1 %					
When was the system installed?	1980					
What degree of land leveling has been completed on this field? (Choose from the options below and indicate when it was done by field)						
• Land Smoothed	Yes					
• Land Leveled						
• Land Precision Leveled						
• Land precision leveled and slope is less than 0.5%						

Flood Irrigation System Description

Natural Resources Conservation Service



Please complete the **Flood Irrigation System Description** only if it relates to your operation.

Worksheet IR10: Flood Irrigation System Description

Field ID Name/Number						
Indicate the number of acres in each field with the corresponding type of Flood Irrigation system.						
• Controlled						
• Uncontrolled						
• Contour Ditch						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so, indicate what type.						
What is the total system flow rate to this field? (cfs or gpm)						
↳ Are you able to control the flow rate to this field?						
Do you measure water to this individual field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the average set time?						
↳ What is the gross depth of application for the given set time? (inches)						
What is the average slope of the field?						
When was the system installed?						
What degree of land leveling has been completed on this field? (Choose from the options below and indicate when it was done by field)						
• Land Smoothed						
• Land Leveled						
• Land Precision Leveled						
• Land precision leveled and slope is less than 0.5%						

Flood Irrigation System Description

The following worksheet continues the description of your **Flood Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR10a: Flood Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
Is any additional pumping required to supply this field?	No					
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.	Yes					
• Based on Water Availability	Yes					
• Visual Crop Stress						
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration						
Are you interested in implementing better ways to schedule irrigations?	Yes					
Do you capture and re-use irrigation tailwater from this field?	No					
↳ If "NO," would you be interested in recapturing tailwater?	Yes					
↳ If "YES," what percentage of the tailwater do you capture?						

Flood Irrigation System Description

The following worksheet continues the description of your **Flood Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR10a: Flood Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration						
Are you interested in implementing better ways to schedule irrigations?						
Do you capture and re-use irrigation tailwater from this field?						
↳ If "NO," would you be interested in recapturing tailwater?						
↳ If "YES," what percentage of the tailwater do you capture?						

Center-Pivot Sprinkler System Description

Please complete the **Center-Pivot Irrigation System Description** only if it relates to your operation. Detailed definitions of Center-Pivot systems can be found on page Irr-2.

EXAMPLE

Worksheet IR11: Center-Pivot Sprinkler Irrigation Description

Field ID Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Center-Pivot system. Refer to page Irr-2 for system descriptions.						
• Generic (High-Pressure with Impact Sprinklers)						
• Low Pressure Improved	126 acres					
• LEPA						
• LESA						
• LPIC						
• Variable Rate Irrigation (VRI)						
• MESA						
• Other (Explain in Notes)						
Are you interested in changing to a different irrigation system type? If so, what type?	Yes, to LESA					
What is the length of the pivot? (feet)	1320 feet					
What is the total system flow rate? (cfs or gpm)	900 gpm					
Do you measure the water to the field?	No					
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?	Yes					
What is the nozzle operating pressure?	20 psi					
What is the operating pressure at the pivot point? (psi)	45 psi					
What percent of a full circle does the pivot cover? (50% for half circle)	100%					
↳ How many hours are normally required to cover the area above?	84 hours					
↳ What is the gross depth of application for the time noted above? (inches)	1.3 inches					
When was the system installed?	1985					

Center-Pivot Sprinkler System Description

Please complete the **Center-Pivot Irrigation System Description** only if it relates to your operation. Detailed definitions of Center-Pivot systems can be found on page Irr-2.

Worksheet IR11: Center-Pivot Sprinkler Irrigation Description

Field ID Name/Number						
Indicate the number of acres in each field with the corresponding type of Center-Pivot system. Refer to page Irr-2 for system descriptions.						
• Generic (High-Pressure with Impact Sprinklers)						
• Low Pressure Improved						
• LEPA						
• LESA						
• LPIC						
• Variable Rate Irrigation (VRI)						
• MESA						
• Other (Explain in Notes)						
Are you interested in changing to a different irrigation system type? If so, what type?						
What is the length of the pivot? (feet)						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the nozzle operating pressure?						
What is the operating pressure at the pivot point? (psi)						
What percent of a full circle does the pivot cover? (50% for half circle)						
↳ How many hours are normally required to cover the area above?						
↳ What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						

Center-Pivot Sprinkler System Description

The following worksheet continues the description of your **Center-Pivot Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR11a: Center-Pivot Sprinkler Irrigation Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
When was the last major maintenance completed on sprinkler heads or gaskets?	2003					
Is any additional pumping required to supply this field?	Yes					
↳ If "YES," what is the energy source and size of the motor?	Electrical, 30 hp					
↳ When was the pump installed?	1985					
↳ When was the last major maintenance/overhaul? Describe.	2003 See Notes					
Do you schedule irrigations? Please indicate the method used below.	Yes					
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network	Yes					
• Use Gypsum, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?	No					

Center-Pivot Sprinkler System Description

The following worksheet continues the description of your **Center-Pivot Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR11a: Center-Pivot Sprinkler Irrigation Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
When was the last major maintenance completed on sprinkler heads or gaskets?						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Use Gypsum, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						

Lateral Move Sprinkler System Description

Please complete the **Lateral Move Sprinkler Irrigation System Description** only if it relates to your operation.

EXAMPLE _____

Worksheet IR12: Lateral Move Sprinkler Irrigation Description

Field ID Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Lateral Move Sprinkler system. Refer to page Irr-2 for system descriptions.						
• Generic (High-Pressure with Impact Sprinklers)	80 acres					
• Low Pressure Improved						
• LEPA						
• LESA						
• LPIC						
• MESA						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so, what type?	Yes, to LESA					
What is the length of the lateral?	1320 feet					
What is the total system flow rate? (cfs or gpm)	600 gpm					
Do you measure the water to the field?	No					
↳ If "YES," are flows recorded annually or automatically?						
↳ If "NO," would you consider adding a water measuring device?	Yes					
What is the nozzle operating pressure?	40 psi					
What is the operating pressure at the system outlet? (psi)	65 psi					
How many hours are normally required to irrigate the field?	84 hours					
↳ What is the gross depth of application for the time noted above? (inches)	1.4 inches					
When was the system installed?	1985					
When was the last major maintenance completed on sprinkler heads or gaskets?	2003					

Lateral Move Sprinkler System Description

Please complete the ***Lateral Move Sprinkler Irrigation System Description*** only if it relates to your operation.

Worksheet IR12: Lateral Move Sprinkler Irrigation Description

Field ID Name/Number						
Indicate the number of acres in each field with the corresponding type of Lateral Move Sprinkler system. Refer to page Irr-2 for system descriptions.						
• Generic (High-Pressure with Impact Sprinklers)						
• Low Pressure Improved						
• LEPA						
• LESA						
• LPIC						
• MESA						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so, what type?						
What is the length of the lateral?						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
↳ If "YES," are flows recorded annually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the nozzle operating pressure?						
What is the operating pressure at the system outlet? (psi)						
How many hours are normally required to irrigate the field?						
↳ What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						
When was the last major maintenance completed on sprinkler heads or gaskets?						

Lateral Move Sprinkler System Description

The following worksheet continues the description of your **Lateral Move Sprinkler Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR12a: Lateral Move Sprinkler Irrigation Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
Is any additional pumping required to supply this field?	Yes					
↳ If "YES," what is the energy source and size of the motor?	Diesel, 50 hp					
↳ When was the pump installed?	1985					
↳ When was the last major maintenance/overhaul? Describe.	2003 See Notes					
Do you schedule irrigations? Please indicate the method used below.	Yes					
• Based on Water Availability						
• Visual Crop Stress	Yes					
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?	Yes					

Lateral Move Sprinkler System Description

The following worksheet continues the description of your **Lateral Move Sprinkler Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR12a: Lateral Move Sprinkler Irrigation Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						

Sprinkler Irrigation System Description

Please complete the ***Sprinkler Irrigation System Description*** only if it relates to your operation.

EXAMPLE _____

Worksheet IR13: Sprinkler Irrigation System Description

Field Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Sprinkler Irrigation system.						
• Hand-Line	60 acres					
• Side-Roll						
• Big Gun						
• Solid-Set						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.	Yes, to Center Pivot					
Indicate the flow rate for each field? (cfs or gpm)	480 gpm					
Do you measure water to the field?	Yes					
↳ If "YES," are flows recorded manually or automatically?	Automatic					
↳ If "NO," would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)	55 psi					
What is your irrigation set time?	23 hours					
↳ What is the gross depth of application for the given set time? (inches)	5 inches					
When was the system installed?	1985					
When was the last major maintenance completed on sprinkler heads and gaskets?	1985					

Sprinkler Irrigation System Description

Natural Resources Conservation Service



Please complete the ***Sprinkler Irrigation System Description*** only if it relates to your operation.

Worksheet IR13: Sprinkler Irrigation System Description

Field Name/Number						
Indicate the number of acres in each field with the corresponding type of Sprinkler Irrigation system.						
• Hand-Line						
• Side-Roll						
• Big Gun						
• Solid-Set						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type.						
Indicate the flow rate for each field? (cfs or gpm)						
Do you measure water to the field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)						
What is your irrigation set time?						
↳ What is the gross depth of application for the given set time? (inches)						
When was the system installed?						
When was the last major maintenance completed on sprinkler heads and gaskets?						

Sprinkler Irrigation System Description

The following worksheet continues the description of your **Sprinkler Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR13a: Sprinkler Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
Is any additional pumping required to supply this field?	Yes					
↳ If "YES," what is the energy source and size of motor?	Electric, 25 hp					
↳ When was the last major maintenance/overhaul? (Describe)	1985 See Notes					
↳ When was the pump installed?	1985					
Do you schedule irrigation? Please indicate the method used below.	Yes					
• Based on Water Availability						
• Visual Crop Stress	Yes					
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurement of soil moisture, water applied and evapotranspiration (ET)						
Are you interested in implementing better ways to schedule irrigation?	Yes					

Sprinkler Irrigation System Description

Natural Resources Conservation Service



The following worksheet continues the description of your ***Sprinkler Irrigation*** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR13a: **Sprinkler Irrigation System Description, continued**

Field Name/Number <i>Use field name/number from previous page.</i>						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of motor?						
↳ When was the last major maintenance/overhaul? (Describe)						
↳ When was the pump installed?						
Do you schedule irrigation? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurement of soil moisture, water applied and evapotranspiration (ET)						
Are you interested in implementing better ways to schedule irrigation?						

Microirrigation System Description

Please complete the **Microirrigation Irrigation System Description** only if it relates to your operation.

EXAMPLE _____

Worksheet IR14: Microirrigation System Description

Field ID Name/Number	1					
Indicate the number of acres in each field with the corresponding type of Microirrigation system.						
• Point Source						
• Sprays						
• Continuous Tape	40 acres					
• Subsurface Drip Irrigation						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?	No					
What is the total system flow rate? (cfs or gpm)	450 gpm					
Do you measure the water to the field?	Yes					
↳ If "YES," are flows recorded manually or automatically?	Automatic					
↳ If "NO," would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)	15 psi					
How many hours per day does the system usually run on each field?	12 hours					
↳ What is the gross depth of application for the time noted above? (inches)	.30 inches					
When was the system installed?	2001					
When was the last major maintenance completed on gaskets, emitters or tape?	2003					

Microirrigation System Description

Please complete the *Microirrigation Irrigation System Description* only if it relates to your operation.

Worksheet IR14: Microirrigation System Description

Field ID Name/Number						
Indicate the number of acres in each field with the corresponding type of Microirrigation system.						
• Point Source						
• Sprays						
• Continuous Tape						
• Subsurface Drip Irrigation						
• Other (Explain)						
Are you interested in changing to a different irrigation system type? If so what type?						
What is the total system flow rate? (cfs or gpm)						
Do you measure the water to the field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
At what pressure does your system operate? (psi)						
How many hours per day does the system usually run on each field?						
↳ What is the gross depth of application for the time noted above? (inches)						
When was the system installed?						
When was the last major maintenance completed on gaskets, emitters or tape?						

Microirrigation System Description

The following worksheet continues the description of your **Microirrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR14a: Microirrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
Is any additional pumping required to supply this field?	Yes					
↳ If so, what is the energy source and size of the motor?	Electric, 15 hp					
↳ When was the pump installed?	2003					
↳ When was the last major maintenance/overhaul? Describe.	2003 See Notes					
Do you schedule irrigations? Please indicate the method used below.	Yes					
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration	Yes					
Are you interested in implementing better ways to schedule irrigation?	No					

Microirrigation System Description

The following worksheet continues the description of your **Microirrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR14a: Microirrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
Is any additional pumping required to supply this field?						
↳ If so, what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigations? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Using Data from Pan Evaporation or Atmometer for Field						
• Using Information from Regional Weather Network						
• Using Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied and evapotranspiration						
Are you interested in implementing better ways to schedule irrigation?						

Sub-Irrigation System Description

Please complete the **Sub-Irrigation System Description** only if it relates to your operation.

EXAMPLE

Worksheet IR15: Sub-Irrigation System Description

Field ID Name/Number	1					
Indicate the number of Sub-Irrigated acres in each field.	60					
Are you interested in changing to a different irrigation system type? If so, what type?	No					
What is the total system flow rate to the field? (cfs or gpm)	2 cfs					
↳ Are you able to control the flow rate to this field?	No					
Do you measure the water to the field?	No					
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the typical water table depth below surface?	18 inches					
When was the system installed?	1930					
What degree of land leveling has been done to the field?						
• Land Smoothed	Yes					
• Land Leveled						
• Land Precision Leveled						
• Land Precision Leveled with slope less than 0.5%						
When was land leveling last completed?						

Sub-Irrigation System Description

Please complete the **Sub-Irrigation System Description** only if it relates to your operation.

Worksheet IR15: Sub-Irrigation System Description

Field ID Name/Number						
Indicate the number of Sub-Irrigated acres in each field.						
Are you interested in changing to a different irrigation system type? If so, what type?						
What is the total system flow rate to the field? (cfs or gpm)						
↳ Are you able to control the flow rate to this field?						
Do you measure the water to the field?						
↳ If "YES," are flows recorded manually or automatically?						
↳ If "NO," would you consider adding a water measuring device?						
What is the typical water table depth below surface?						
When was the system installed?						
What degree of land leveling has been done to the field?						
• Land Smoothed						
• Land Leveled						
• Land Precision Leveled						
• Land Precision Leveled with slope less than 0.5%						
When was land leveling last completed?						

Sub-Irrigation System Description

The following worksheet continues the description of your **Sub-Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

EXAMPLE _____

Worksheet IR15a: Sub-Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>	1					
Is any additional pumping required to supply this field?	No					
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigation? Please indicate the method used below.	No					
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigations?						
Do you capture and re-use the drainage water from this field?						
↳ If "NO," are you interested in recapturing tailwater?						
↳ If "YES," what percentage of the tailwater do you capture?						

Sub-Irrigation System Description

The following worksheet continues the description of your **Sub-Irrigation** system. Please copy the field name/number from the previous worksheet to continue this section.

Worksheet IR15a: Sub-Irrigation System Description, continued

Field Name/Number <i>Use field name/number from previous page.</i>						
Is any additional pumping required to supply this field?						
↳ If "YES," what is the energy source and size of the motor?						
↳ When was the pump installed?						
↳ When was the last major maintenance/overhaul? Describe.						
Do you schedule irrigation? Please indicate the method used below.						
• Based on Water Availability						
• Visual Crop Stress						
• Scheduling Check Book						
• Use Data from Pan Evaporation or Atmometer for Field						
• Use Information from Regional Weather Network						
• Use Gypsum Blocks, Moisture Probe, etc.						
• Continuous Measurements of soil moisture, water applied, and evapotranspiration						
Are you interested in implementing better ways to schedule irrigations?						
Do you capture and re-use the drainage water from this field?						
↳ If "NO," are you interested in recapturing tailwater?						
↳ If "YES," what percentage of the tailwater do you capture?						

Notes

Notes